

VVEDENSKIY, T.

"Machine tools made of large blocks" by A.I. Dashchenko.  
Reviewed by T. Vvedenskiy. Mashinostroitel' no.11:46  
N 62. (MIRA 15:12)  
(Machine tools—Design and construction)  
(Dashchenko, A.I.)

VVEDENSKIY, T.A.

From the history of standardization in Russia. Standartizatsiia 26  
no.5:62-63 My '62. (MIRA 15:7)  
(Standardization)

VVEDENSKIY, T.A.

Standards in the working equipment of engineers. Standartizatsia  
26 no.7:35-36 JI '62. (MIRA 15:7)  
(Standards, Engineering)

VVEDENSKIY, T.A., inzh.

Mounting design layouts with magnetic models. Vest.mashinostr.  
42 no.8:81 Ag '62. (MIRA 15:8)  
(Engineering models)

WEDENSKIY, T.

Accessory tools for forging and stamping. Mashinostroitel'  
no.1:38 Ja '63. (MIRA 16:2)

(Tools)

VVEDENSKIY, T.

About specialized books for machinery-industry workers. Mashinostroitel'  
no.2:46 P '63. (MIRA 16:3)

(Metalwork)

VVEDENSKIY, T.

"Technology and Aesthetics" by V.Beletskaya. Reviewed by  
T.Vvedenskii. Mashinostroitel' no.3:46 Mr '63. (MIRA 164)  
(Art and industry) (Beletskaya, V.)

VVEDENSKIY, T., konstruktor

Organization of machinery designers' work. Sots.trud 8  
no.4:89-92 Ap '63. (MIRA 16:4)

1. Moskovskiy avtomobil'nyy zavod imeni Likhacheva.  
(Moscow—Automobile industry--Technological innovations)  
(Technicians in industry)



VVEDENSKIY, T.A., inzh.

"Technical information in Czechoslovakia" by Jiri Tozan.  
Vest. mashinostr. 44 no.5:82-83 My '64. (MIRA 17:6)

VVEDENSKIY, T.A.

Semiautomatic line for tire mounting. Avt. prom. 30 no.3:  
47-48 Mr '64. (MIRA 17:6)

RABINOVICH, N.L., starshiy bibliograf; VVEDENSKIY, T.A.

Book reviews. Mashinostroitel' no.8:41 and 48 Ag '65.  
(MIRA 18:11)

1. Starshiy bibliograf Gosudarstvennoy publichnoy nauchno-  
tekhnicheskoy biblioteki SSSR Gosudarstvennogo komiteta po  
koordinatsii nauchno-issledovatel'skikh rabot SSSR (for  
Rabinovich).

VVEDENSKIY, T.A.

Reviews and bibliography. Mashinostroitel' no.12:41-42  
D '65. (MIRA 18:12)

VVEDENSKIY, T.A.

Problems of organization in standardization. Standartizatsiia  
29 no.7:6-7 J1 '65. (MIRA 18:11)

VVEDENSKIY, T.A.

Draft of State Standard 1-65 compared to similar foreign standards.  
Standartizatsiia 29 no.8:46-48 '65. (MIRA 18:10)

VVEDENSKIY, T.A.

Quality trade mark in Poland. Standartizatsia 29 no.10:17-18  
0 '65. (MIRA 18:12)

VVEDENSKIY, T.I.

Denotations used in specifications. Standartizatsiya no.3:68-69  
My-Je '56. (MLRA 9:9)

1. Nachal'nik TsBNS Moskovskogo avtozaveda imeni Likhacheva.  
(Specifications)



VVEDENSKIY, T., konstruktor

On the bookshelf. Izobr.i rats. no.4:36 Ap '62. (MIRA 15:4)

1. Avtozavod imeni Likhacheva, Moskva.  
(Bibliography---Technological innovations)

AKTOKA, Ye.S.; VVEDENSKIY, V.A.

Upright drilling machines; standards of precision and rigidity.  
Standartizatsia 24 no.9:46-48 S '60. (MIRA 13:9)  
(Drilling and boring machinery--Standards)

VVEDENSKIY, V.A., inzhener.

Elimination of some defects in the operation of screw presses.  
Masl.-shir.prom. 17 no.8:23-29 Ag '52. (MEM 10:9)

1. Severnskiy maslozavod.  
(Oil industries--Equipment and supplies)

1. WEDENSKIY, V. A., Eng.
2. USSR (600)
4. Soybean Oil
7. Increasing the productive capacity of rollers in processing soya beans, Masl. zhir. prom., 17, No. 7, 1952.
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

VVEDENSKIY, V. A., Academician

"Present Importance of Radio" Vest. Ak. Nauk SSSR, No. 9, 1944

BR-52059019

VVEDENSKIY, V.A.  
U.S.

*Location & Aids to Navigation*

021.90.06: 551.594.6 2428  
Storm Indication by Radio Locators. V.A. Vvedenskiy.  
(Radio, Moscow, April 1946, No. 1.  
pp. 4-8. In Russian.)



**CA**

**Alkyl esters of aromatic sulfonic acids as alkylating agents.** V. E. Vredenskii. *J. Chem. Ind. (Moscow)* 1935, No. 1, 64-7.—Review. H. M. Leicester

**ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION**

FROM DIVISION OF RESEARCH AND DEVELOPMENT  
RESEARCH AND DEVELOPMENT DIVISION

1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 2900 3000 3100 3200 3300 3400 3500 3600 3700 3800 3900 4000 4100 4200 4300 4400 4500 4600 4700 4800 4900 5000 5100 5200 5300 5400 5500 5600 5700 5800 5900 6000 6100 6200 6300 6400 6500 6600 6700 6800 6900 7000 7100 7200 7300 7400 7500 7600 7700 7800 7900 8000 8100 8200 8300 8400 8500 8600 8700 8800 8900 9000 9100 9200 9300 9400 9500 9600 9700 9800 9900



119

ca

Changes in the alkali reserve of the blood in the case of shock therapy. N. I. Vydeniskii. *Klin. Med.* 11, 8 S. R. 14, 049 (21100); *Ches. Zentr.* 1918, 1, 023, cf. preceding abstr.—The alkali reserve, which is greatly reduced in ulcerous disorders of the stomach in acute stages, is lowered still further by the use of intravenous homo- and heterotransfusions in shock therapy; it increases again only at the conclusion of treatment.

ASB-SLA DETAILING LITERATURE CLASSIFICATION

ASB-SLA DETAILING LITERATURE CLASSIFICATION

VVEDENSKIY, T.A.

Automatic machine for pressworking of metals. Avt. prom.  
30 no.6:40 Je '64. (MIRA 17:12)

VVEDENSKIY, T.A.

Standards as a source of technological information. NTI no. 4:19-20  
165. (MIRA 18:6)

VVEDENSKIY, T.A.

Standards instead of norms. Mashinostroitel' no.7:34-36 J1 '65.  
(MIRA 18:7)

L 4942-66 EWT(d)/FBD/FSS-2/EWT(1)/EEC(k)-2/EWA(d)/I-; GW/WS-2/WR

ACC NR: AP5025696

SOURCE CODE: UR/0286/65/000/018/0044/0044

AUTHORS: Brodovskiy, V. M.; Vvedenskiy, V. A.; Voronin, N. N.; Moiseyev, I. G.;  
Pogozhev, I. I.; Semenov, Yu. N.; Yakimenko, N. M.

ORG: none

TITLE: A device for controlling a radio telescope in azimuthal mounting. Class 21, 174689 /announced by Organization of the State Committee for Defense Engineering SSSR (Organizatsiya gosudarstvennogo komiteta po oboronnoy tekhnike SSSR)

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 44

TOPIC TAGS: azimuth, radio telescope, telescopic equipment, tracking telescope, tracking system, tracking, tracking computer

ABSTRACT: This Author Certificate presents a device for controlling a radio telescope in an azimuthal mounting. The device contains an input unit for the reference data in the equatorial coordinate system and electric following drives for turning the radio telescope in azimuth and elevation angles. The reliability and precision of tracking are increased. The unit contains a digital computer. The output of the elevation angle and azimuth angular mismatch are connected via

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UDC: 621-503.53:522.61

L 1942-66

ACC NR: AP5025696

memory registers and groups of amplifiers to the input of code-to-voltage converters. The second input of these converters, via a second group of amplifiers and corresponding memory registers, is connected to the outputs of the azimuth and elevation angle data speeds of the digital computer. The third input of the converters is connected to tachogenerators. These tachogenerators are mechanically connected to the azimuth and elevation angle axes of the radio telescope. To broaden the operating range of the azimuth angle pickup when the radio telescope passes from the clearly defined range, the output of an azimuth code correction selsyn is connected to the digital computer. This azimuth code correction selsyn is mechanically connected to the azimuth axis and is mounted on the turning circle, increasing the operating range of the radio telescope.

SUB CODE: DC, OP/ SUBM DATE: 25Jul64

OC  
Card 2/2

PETLICHNA, L.I. [Petlychna, L.I.]; VVEDENSKIY, V.M. [Vvedens'kyi, V.M.];  
TURKEVICH, M.M. [Turkevych, M.M.]

3-alkyl derivatives of rhodanine, their synthesis and properties.  
Farmatsev. zhur. 16 no.4:7-9 '61. (MIRA 17:6)

1. Kafedra farmatsevticheskoy khimii L'vovskogo meditsinskogo  
instituta.

TURKEVICH, N.M.; VVEDENSKIY, V.M.; PETLICHNAYA, L.M.

Substitution in the azolidine ring. Part 13: Method of preparing  
pseudothiohydantoin and 2,4-thiazolidinedione. Ukr.khim.zhur.  
27 no.5:680-681 '61. (MIRA 14:9)

1. L'vovskiy meditsinskiy institut.  
(Hydantoin) (Thiazolidinedione)



PETLICHNAYA, L.I.; TURKEVICH, N.M.; VVEDENSKIY, V.M.

Substitution in the azolidine ring. Part 15: Thiourethanes  
as starting materials in the synthesis of derivatives of  
2,4-thiazolidinedione. Ukr. khim. zhur. 29 no.2:170-171 '63.  
(MIRA 16:6)

1. L'vovskiy nauchno-issledovatel'skiy institut perelivaniya  
krovi.

(Urethanes) (Thiazolidinedione)  
(Substitution(Chemistry))

VVEDENSKIY, V.M.; VINOKUROV, D.M.

Condensation of glycidol with borneol. Izv. vys. ucheb.  
zav; khim. i khim. tekhn. 3 no. 5:959-960 '60. (MIRA 13:12)

1. L'vovskiy lesotekhnicheskii institut. Kafedra obshchey i  
organicheskoy khimii.  
(Glycidol) (Borneol)

TURKEVICH, N.M.; VVEDENSKIY, V.M.; PETLICHNAYA, L.I.

Synthesis of thiazolidone derivatives of biological interest.  
Part 18: N,N'-tetramethylene-bis-rhodanine and its 5,5-diarylidene  
derivatives. Zhur.ob.khim. 32 no.3:980-981 Mr '62.  
(MIRA 15:3)

1. L'vovskiy meditsinskiy institut.  
(Cyclobutane) (Rhodanine)

VVEDENSKIY, V. M.

5  
chem  
(3)

Chemical Abst.  
Vol. 48 No. 5  
Mar. 10, 1954  
Organic Chemistry

Alkyl ethers of glycerol. M. S. Malinovskii and V. M. Vvedenskii (Lvov Forestry Inst.). *Zhur. Obshchei Khim.* 23, 219-20 (1953).—Heating glycidol with ROH in the presence of 1% by wt. of  $H_2SO_4$  gave exclusively  $ROCH_2CH(OH)CH_2OH$  (I), usually primary *n*-alcs. gave best yields (60-80%); primary iso-alcs. gave 29-34%, secondary alcs. 30-5%, and tertiary alcs. only 3-4% yields after very long reactions (up to 20 hrs.).  $PhCH_2OH$  reacted poorly and gave but 10-18% yields. The structures of the I were confirmed by synthesis from epichlorohydrin and  $RONa$ ; the yields were poor. For best results a 5-fold excess of ROH is used; decrease of the amount of  $H_2SO_4$  lowers the yield. The properties of the I (*R*, b.p., and *d*<sub>4</sub> shown):  
Me, 198-200°, 1.183; Et, 219-22°, 1.0947; Pr, 221-4°, 1.0826; iso-Pr, 187-90°, 1.0063; Bu, 226-7°, 1.0585; iso-Bu, 210-18°, 1.0050; *N*-C, 209-11°, 1.0761; Am, 257-60°, 1.0063; iso-Am, 248-50°, 1.0047; allyl, 200-10°, 1.0869; *PhCH*<sub>2</sub>, 274-6°, 1.0263. G. M. Kosolapoff

MF  
7-27-54

*Vvedenskiy, V.M.*

MALINOVSKIY, M.S.; VVEDENSKIY, V.M.

Obtaining  $d,d'$ -diethers of glycerin. Ukr. khim. zhur. 23 no.5:626-  
628 '57. (MLBA 10:11)

1. L'vovskiy lesotekhnicheskii institut.  
(Ether) (Glycerol)

VVEDENSKIY, V. M.: Master Chem Sci (diss) -- "The synthesis of alkyl ether/esters of glycerine and their conversion". L'vov, 1958. 15 pp (Min Higher Educ USSR, Dnepropetrovsk State U im 300th Anniversary of the Unification of the Ukraine with Russia) (KL, No 7, 1959, 121)

VVEDENSKIY, V.M.; TURKEVICH, N.M.; PETLICHNAYA, L.I.

Substitution in the ~~asolidine~~ <sup>azolidine</sup> ring. Part 16: Synthesis of  
3-butylrhodanine and its 5-arylidene derivatives. Ukr. khim.  
zhur. 29 no.2:175-176 '63. (MIRA 16:6)

1. L'vovskiy nauchno-issledovatel'skiy institut perezhivaniya  
krovi.

(Rhodanine)

21.4210

S/170/61/004/005/002/015  
B104/B205

AUTHORS: Buleyev, N. I., Vvedenskiy, V. N., Nakhutin, I. Ye.,  
Pyshin, V. K.

TITLE: Calculation of the temperature and the adsorptive capacity  
of an adsorbent with internal sources of heat

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 4, no. 5, 1961, 8-11

TEXT: The effect of dissipation of radioactive radiation on the temperature and capacity of an adsorbent has been studied. A gas containing a radioactive component is blown through a tube of radius  $r_0$  and length  $z_0$  along the axis. The tube is filled with a granular adsorbent. The authors attempted to determine the capacity of the adsorbent under steady conditions. Therefore, it is obviously necessary to find the temperature distribution in the adsorbent as a function of  $r$  and  $z$ . This temperature distribution is expressed by the differential equation

$$\lambda \left( \frac{\partial^2 t}{\partial r^2} + \frac{1}{r} \frac{\partial t}{\partial r} + \frac{\partial^2 t}{\partial z^2} \right) - GC_p \frac{\partial t}{\partial z} = -g(t) \quad (1),$$

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Calculation of the temperature and the...

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where  $\lambda$  is the effective coefficient of thermal conductivity of the granular adsorbent in the gas concerned,  $C_p$  the specific heat of the gas,  $g$  the density of the internal sources of heat, and  $G$  the weight of the gas passing through the tube per unit time.  $g(t)$  is proportional to the amount  $q(t)$  of radioactive gas adsorbed per unit volume at temperature  $t$ , and is proportional to the mean energy  $E$  of one decay and inversely proportional to half-life  $T$ :  $g = 0.69 nq(t)E/T$ , where  $n$  is the Loschmidt number.  $q(t)$  can be expressed by the empirical relation  $q(t) = q(t_0)\exp\{-k(t-t_0)\}$ .

$k$  depends on the partial pressure  $p$  of the radioactive component but not on temperature. If  $z_0/r_0 \gg 1$  and if the heat transport through the gas stream is much larger than the heat transport effected by heat conduction along  $z$ , i.e., if the term  $\lambda \partial^2 t / \partial z^2$  in (1) is negligible, then it is possible to represent (1) in the form

$$\partial^2 \tau / \partial \varphi^2 + \frac{1}{\varphi} \partial \tau / \partial \varphi - \beta \partial \tau / \partial \xi = -\gamma \exp(-\tau) \quad (5)$$

after introduction of the variables  $\varphi = r/r_0$ ,  $\xi = z/r_0$ , and  $\tau = k(t-t_0)$ .

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Calculation of the temperature and the...

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(5) is solved with the following boundary conditions:

$$\tau_{\xi=0} = 0, (\partial\tau/\partial\xi)_{\xi=0} = 0, (\partial\tau/\partial\xi)_{\xi=1} = -\alpha r_0 \tau / \lambda = -\delta\tau \quad (8.2),$$

where  $\alpha$  is the heat-exchange coefficient at the boundary between the adsorbent and the wall of the tube. If  $\beta = 0$ , Eq. (5) can be represented in the form

$$\tau'' + \tau'/\xi = -\gamma \exp(-\tau) \quad (9).$$

The solution of this equation reads:  $\tau = 2 \ln(\gamma_1 \xi^{h_1} + \gamma_2 \xi^{h_2}) - \ln W \quad (10),$

where  $\gamma_1$  and  $\gamma_2$  are constants, and  $h_{1,2}$  are roots of the equation  $h^2 - 2h + c/2 = 0$ . It is shown that  $h_1$  or  $h_2$  must be equal to zero and  $c = 0$ . Thus, one obtains

$$\tau = 2 \ln(\gamma_1 + \gamma_2 \xi^2) - \ln(\gamma_1 \gamma_2 - \gamma) = \ln \left[ -\frac{\gamma}{8} (V\gamma_1/\gamma_2 + \rho^2 V\gamma_2/\gamma_1)^2 \right]. \quad (12)$$

Hence, the solution depends only on  $\gamma$ , since  $\gamma_1/\gamma_2$  can be determined from the condition (8.2):  $f = \gamma_1/\gamma_2 = -(4/\gamma + 1) - \sqrt{16/\gamma^2 + 8/\gamma} \quad (13),$

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Calculation of the temperature and the...

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wherefrom it follows that  $\tau = \ln(f + \varphi^2)^2 / (f + 1)^2$ . When  $\tau = F(\varphi)$  is found, also the adsorptive capacity can be easily calculated:

$$Q = 2\pi r_0^2 z_0 q(t_0) \int_0^1 \frac{(f+1)^2}{(f+\varphi^2)^2} \rho d\rho = Q_0 \left(1 + \frac{1}{f}\right). \quad (17)$$

In general, Eq. (5) cannot be solved by quadratures, and numerical methods are applied instead. Such calculations have been made, and Fig. 2 shows the solutions obtained for three different values of  $\gamma$ . This figure illustrates the effect of the gas stream on temperature: In the initial part  $\tau$  is notably smaller than at a certain distance from the inlet. From a certain value of  $\xi = z/r_0$  onward  $\tau$  may be assumed to equal the reduced temperature which holds for an infinitely extended cross section and is obtained from (14). There are 2 figures and 6 references: 5 Soviet-bloc and 1 non-Soviet-bloc.

SUBMITTED: October 3, 1960

Card 4/5



BULEYEV, N.I.; VVEDENSKIY, V.N.; NAKHUTIN, I.Ye.; PYSHIN, V.K.

Calculating the temperature and capacity of an adsorbent in the  
presence of an internal heat source. Inzh.-fiz. zhur. 4 no. 5:8-11  
My '61. (MIPA 14:5)

(Adsorption)

SIMON, I.B.; VVEDENSKIY, V.P.

Synthesis of some o-bromobenzyldimethylethylammonium salts  
with sympatholytic and hypotensive action. Med. prom. 15 no.7:  
10-14 JI '61. (MIRA 15:6)

1. Ukrainskiy nauchno-issledovatel'skiy institut eksperimental'noy  
endokrinologii.

(AMMONIUM SALTS--PHYSIOLOGICAL EFFECT)

SIMON, I.B.; VVEDENSKIY, V.P.

Synthesis of certain tetramethylpiperidine derivatives. Part. 2.  
Zhur. ob. khim. 34, no.12:4037-4039 D '64 (MIRA 18:1)

1. Ukrainskiy institut eksperimental'noy endokrinologii.

ROZOVSKAYA, Ye.S.; SIMON, I.B.; VVEDENSKIY, V.P.; SOBOLEVA, V.M.

Synthesis and the pharmacological properties of some salts of bromine derivatives of benzyldimethylethylammonium. Trudy Ukr. nauch.-issl. inst. eksper. endok. 19:404-417 '64. (MIRA 18:7)

1. Iz otdela khimii gormonov Ukrainskogo instituta eksperimental'noy endokrinologii i kursa farmakologii Khar'kovskogo meditsinskogo stomatologicheskogo instituta.



KOLOSOV, Boris Alekseyevich, dots.; VVEDENSKIY, V.P., prof., otv. za  
vypusk.

[Geodetic calculations and graphs] Raschetno-graficheskie raboty po  
geodezii. Moskva, M-vo vysshago i srednego spetsial'nogo obrazova-  
niia RSFSR, 1960. 135 p. (MIRA 14:11)  
(Surveying—Problems, exercises, etc.)

ACCESSION NR: AP4039272

8/0148/64/000/005/0040/0045

AUTHOR: Vvedenskiy, V. S.; Rubenchik, Yu. I.; Semenchenko, G. V.; Kryakovskiy, Yu. V.; Yavoyaskiy, V. I.

TITLE: Improvement of deoxidation methods during the finishing of "10Kh16N25M6" and "40KhNMA" steel

SOURCE: IVUZ. Chernaya metallurgiya, no. 5, 1964, 40-45

TOPIC TAGS: rare earth metal, stainless steel, structural steel, austenitic carbide steel, low plasticity, hot working, calcium silicon additive, deformation, nonmetallic inclusion, ferrocerium, grain coarsening

ABSTRACT: The authors investigated the effect of rare earth metals on the quality of stainless and structural steel. Austenitic carbide steel "10Kh16N25M6" served as a specimen. The low plasticity of this steel after hot working was studied in cast and forged pieces. Calcium silicon powder and lumps were added to the melt. Deformed and non-deformed specimens ruptured after forging and 180 C bending. Chromite inclusions were identified in all specimens. In cast and rolled specimens 0.2% ferrocerium enhanced plasticity while mechanical properties

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ACCESSION NR: AP4039272

remained unchanged. The carbide phase was more uniformly distributed. In "40KhNMA" structural steel 1 kg/t ferrocerium and calcium silicon added during the finishing period to an 18 ton electric furnace prevented hairline cracking. The authors assume that deoxidation during the finishing stage changes the physical properties of non-metallic inclusions. A coarsening of the natural grain of up to 4 ASTM is indicative of a higher purity along grain boundaries. Orig. art. has: 5 figures and 3 tables.

ASSOCIATION: Moskovskiy institut stali i splavov i Izhevskiy metallurgicheskiy zavod (Moscow Institute of Steel and Alloys and Izhevsk Metallurgical Plant)

SUBMITTED: 30Dec63

ENCL: 00

SUB CODE: MM

NO REF SOV: 002

OTHER: 000

Card

2/2

PROKHORENKO, K.K., kand.tekhn.nauk; YEMEL'YANENKO, Yu.G.; NAKONECHNYI, N.F.;  
VVEDENSKIY, V.S.

Production of stainless steel with the use of high-carbon ferrochromium.  
Met.i gornorud. prom. no.6:20-23 N-D '63. (MIRA 18:1)



**Card**

 $\frac{1}{2}$ 

NOTES ON THE HISTORY OF THE

[illegible]

**APPROVED FOR RELEASE: 09/01/2001**

**CIA-RDP86-00513R001961320004-5"**

did not increase the yield. Orig. att. name X negative

Card 2/3

S/137/61/000/011/027/123  
A060/A101

AUTHORS: Prokhorenko, K.K., Ishchuk, N.Ya., Vvedenskiy, V.S., Vasil'yev, N. Ye., Verkhovtsev, E.V.

TITLE: Reduction of the contamination of electric steel by fine cracks and non-metallic impurities

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 11, 1961, 53, abstract 11V305 (V sb. "Vopr. proiz-va stali", no. 8, Kiev, AN USSR, 1961, 55 - 69)

TEXT: Steel 30XH 2MΦA (30KhN2MFA) is smelted in 20-ton arc furnaces and is cast in 2-ton ingots. In connection with the fact that this steel is sensitive to fine cracks, a study was made of the influence of the reducing method upon formation of fine cracks, its nonmetallic impurity content and its mechanical characteristics. The following variants of the reduction method were tried out: diffusion reduction by 75% Fe-Si with the admixture of 0.5 kg Al per ton at the end of the heat; the same but with Al added before the admixture of Fe-Cr; "precipitation" reduction by 45% Fe-Si and 0.5 kg Al per ton at the end of the heat; the same with 1.5 kg Si-Cd per ton in the ladle; reduction of 45% Fe-

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Reduction of the contamination ...

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A060/A101

Si and Al 1.0 kg/ton at the end of the heat; the same but with 1.5 kg Al per ton. The percentage by weight of nonmetallic impurities in the steel was the lowest at the increased Al admixture (1.0-1.5 kg/ton). It was established that the main reason for the formation of fine cracks in the steel 30KhN2MFA are large oxide impurities deformed in the direction of rolling; the oxide impurity content and the steel affection by cracks are reduced as one raises the quantity of Al introduced into the steel; the steel has the greatest contamination when the Al is added before introducing the Fe-Cr; the reduction method - diffusion of "precipitation" has no influence upon the quality of the steel; when Si-Cd is used for reducing the steel, the number of cracks is reduced but their size becomes greater; the mechanical characteristics are basically the same for all the variants of the reduction method. There are 15 references.

V. Boyarshinov

[Abstracter's note: Complete translation]

Card 2/2

VVEDENSKIY, V. S.; RUBENCHIK, Yu. I.; SEMENCHENKO, G. V.; KRYAKOVSKIY,  
Yu. V.; YAVOYSKIY, V. I.

Improved methods for the final deoxidation of 10Kh16N2M6 and  
40KhNMA steels. Izv. vys.ucheb.zav.; chern.met.7 no. 5:40-45  
'64. (MIRA 17:5)

1. Moskovskiy institut stali i splavov i Izhevskiy metallurgicheskiy  
zavod.

PROKHORENKO, K.K.; SVISTUNOV, A.M. [deceased]; VVEDENSKIY, V.S.; VERKHOV-  
TSEV, E.V.; YEMEL'YANEIKO, Yu.G.; NAKONECHNYI, N.P.; PASTURHOV,  
V.N.

Improving the technology of smelting and pouring stainless  
steel. Vop. proizv. stali no.9:51-64 '63. (MIRA 16:9)

VVEDENSKIY, V. S.,

"The effect of rare-earth met<sup>als</sup> on the properties of stainless and structural steel"

report presented at the Conf. on New Trends in the Study and Applications of Rare  
Earth Metals, Moscow, 18-20 Mar 63

S/133/62/000/005/006/008  
A054/A127

AUTHORS: Vvedenskiy, V.S., Zelenov, V.A., and Prokhoronko, K.K.

TITLE: Distribution of nonmetallic inclusions in structural steel ingots

PERIODICAL: Stal', no. 5, 1962, 454 - 457

TEXT: Tests were carried out to determine the quantity, composition and distribution of nonmetallic inclusions in 3XH 2 MΦA (30KhN2ΦA) steel ingots. The metal was reduced according to 6 versions, at metal temperatures between 1,530 and 1,630°C and by adding aluminum for reduction at various stages of the process in amounts of 0.5, 1.0 and 1.5 kg. Diffusion reduction was applied in two versions and precipitation reduction in the other versions. Prior to dissolving, the specimens were heat-treated to decrease the carbide content (water-quenching from 880°C, tempering at 300°C, cooling in the furnace). Dissolving took place in an electrolyte containing 3% FeSO<sub>4</sub> · 7 H<sub>2</sub>O, 1% NaCl and 0.2% KNaC<sub>4</sub>H<sub>4</sub>O<sub>6</sub> (pH = about 4.5 - 5.5). The analysis results of the 6 versions were:

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S/133/62/000/005/006/003  
A054/A127

Distribution of.....

Version	I	II	III	IV	V	VI
Total quantity of inclusions $10^{-3}\%$	17	11	12	10	6.4	5.8

Composition of the inclusions %

Fe <sub>3</sub> O <sub>4</sub>	1.7	1.7	0.8	1.4	1.6	1.9
Al <sub>2</sub> O <sub>3</sub>	73.3	81.8	81.7	75.3	69.3	60.8
Silicates	25.0	16.5	17.5	23.3	28.1	37.3

(Versions I, II: diffusion method; versions III-VI: precipitation method).  
The largest number of inclusions formed when applying version I (adding 0.5 kg aluminum/ton before tapping the metal into the ladle). When increasing the amount of aluminum to 1.0 kg (version V) or 1.5 kg (version VI) and applying the precipitation reduction method, the number of nonmetallic inclusions decreased, also in the skin layer of the ingot. Version VI produced the most uniform distribution of nonmetallic inclusions in the ingot and, at the same time these ingots showed the most homogeneous macrostructure, evidently on account of a more intensive reduction of the metal, whereas the greatest amount of nonmetallic inclusions can be found in zones of nonhomogeneous macrostructure, (axial zone of

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S/133/62/000/005/006/008

A054/A127

Distribution of.....

ingots, reduced according to versions, I, III and IV). In general the center of the ingot (in height and section) was impurified most by inclusions, whereas the zone below the riser contained the fewest impurities. By increasing the amount of aluminum added the difference in the size and shape of inclusions in the external and central parts of the ingot decreases. The increased amount of aluminum (1.0 - 1.5 kg/ton) also affects the composition of inclusions: it decreases their aluminum oxide content. In version III reduction was carried out by adding 0.5 kg aluminum/ton before tapping and 1.5 kg calciumsilicate/ton into the ladle. In this case the nonmetallic inclusions were mainly concentrated in the lower part of the ingot, whereas their distribution in the ingot section was fairly uniform. When reducing with increased amounts of aluminum (up to 1.5 kg/ton) aluminum oxides occur in crystal form and large conglomerates; when reducing with calcium-silicate, large, spheroidal inclusions are forming, containing aluminumoxide crystals, coated with silicate shells. There are 5 figures.

Card 3/3

L 15577-63

EMP(q)/ZMT(m)/EDS AFPTC/ASD JD/JG

43

ACCESSION NR: AT3002167

S, 2-21, 15/000/009/0051/000

AUTHORS: Prokhorenko, K. K.; Svistunov, A. M. (deceased); Vvedenskiy, V. S.;  
Varkhovtsev, E. V.; Yemel'yanenko, Yu. G.; Nakonechnyy, N. F.; Pastukhov, V. N.

TITLE: Technological improvements in melting and pouring of stainless steel 18

SOURCE: AN Ukr RSR. Viddil tekhnichnykh nauk. Voprosy\* proizvodstva stali, no. 9, 1963, 51-64

TOPIC TAGS: stainless steel, technological improvement, melting, pouring

ABSTRACT: The old methods of melting and pouring steel are criticized. New procedures used in both processes and the results obtained are described and discussed. The furnace charge used in the improved method of melting consisted of 30-70% scrap steel (stainless carbon steel low in P and carbon ferrochrome). The total content of C, Cr, and Si in the charge was 0.3-0.5%, 17-19%, and 0.4% respectively. Oxygen was blown in under a pressure of 15 atm., after which the metal temperature was raised to 1850-1880C. As a result, the carbon content was lowered to 0.05% and that of Cr to 12.9%. The slag formed was fluid, homogeneous, and contained 48.6% Cr<sub>2</sub>O<sub>3</sub>. The amount of silicochrome, which was introduced at the end of blowing, was calculated in such a way that the metal contained 3% Si and

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L 15577-63

ACCESSION NR: AT3002167

1.5% of lime by weight of metal. After 10 minutes 15% (wt) of blooms were introduced for the cooling purposes. The new method provides for the melting of stainless steel containing a minimum of 0.06% carbon by using carbon ferrochrome or a 100% high-chromium scrap (without the use of carbon-free ferrochrome). The improved method of pouring is based on the formation of a slag layer on the open surface of the ingot, preventing metal oxidation in the ingot. Moreover, the liquid slag solidifies on the ingot walls, thus serving as a lubricant that protects the walls. It also dissolves floating nonmetallic inclusions and prevents formation of a coarse crust on the ingot surface by moderating the surface cooling of the metal. Orig. art. has: 4 tables and 4 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 10 May 63

ENCL: 00

SUB CODE: ML

NO REF SOV: 004

OTHER: 001

Card 2/2

VVEDENSKIY, V.T.; CHVANOV, N.A.

Transistor threshold circuit with a high input impedance. Frib.1  
tekh.eksp. 6 no.5:71-73 S-0 '61. (MIRA 14:10)  
(Transistor circuits)

VVEDENSKIY, V.T.; IVANOV, V.M.

Simple system of a logarithmic intensitometer. Prib.1 tekhn. eksp.  
6 no.5:65-67 S-0 '61. (MIRA 14:10)

(Radiometer)

Vvedeniye, V.V.

PLATE I BOOK EXPLANATION 507/3604

Avdeyevskiy park 5350. Institut mashinostroyeniya

Primeneniye effektivnykh termomashinnykh ustroystv. Sovetskie fiziko-  
matematicheskiye (inzhenernye) issledovaniya. Moscow, Izd-vo Ak SSSR, 1959.  
Properties of Friction Materials. 183 p. Kireva slip inserted. 1,800 copies printed.

Resp. Ed.: V.S. Shchedrov, Doctor of Technical Sciences, Professor;  
Ed. of Publishing House: P.K. Balashov, Tech. Ed.: E.Y. Polyakova.

PREFACE: This collection of articles is intended for engineers and  
scientific workers specializing in brakes and friction materials.

CONTENTS: The first group of articles deals with basic design  
measures for increasing the life and efficiency of brakes; the  
second group with problems of the development and fields  
of application of friction materials; the third group with  
basic principles of the design of brakes and the results of investigations of friction  
braking methods and the fourth group with the design of brakes  
parts and their tests. No preface is included. References  
are given at the end of the articles.

# TABLE OF CONTENTS:

Chapalov, G.Ye., S.S. Kozlov, A.Y. Pech, and V.P. Maslennikov.  
Automatic Braking of Aircraft During Landing Run  
The authors present results of a study of automatic brake sys-  
tems, particularly the results of searching characteristic and  
adjustment of its single members in particular systems on brake  
efficiency. 26

Khramov, A.M. Basic Design Measures for Increasing the Life  
and Efficiency of Block Brakes  
The author discusses the construction and operation of railroad  
brakes with respect to increasing the life and efficiency and  
ensuring braking distances, and describes types of modern brakes  
in use and in the experimental stage. 46

## PART II. DEVELOPMENT OF NEW FRICTION MATERIALS AND INVESTIGATION OF THEIR APPLICATION

Podolskiy, Y.Z., and A.K. Baranova. Investigation of Friction  
Properties of Low-Carbon Iron-Base Alloys  
The authors present results of a study of friction properties  
of steels of various chemical composition from the regular  
series of low-carbon steels, heat-resistant steels. They also de-  
scribe the effect of various alloying additions on the fric-  
tion properties and variability of steel. 62

Shibko, B.L., and A.A. Yemelin. Chromium Increases for Heavy-Duty  
Brakes  
The authors describe the properties of chromium bronzes, giving  
their characteristics as a friction material for brakes, and  
comparing them with cast iron. 82

Kudrov, K.M. Development and Investigation of Cast Friction  
Alloys  
The author presents test information on the PK-8 cast fric-  
tion material, which was tested in a pair with type GKhKh  
cast iron. 88

Georgiyevskiy, G.A. Aspects of the Development of Heat-Resistant  
Friction Materials  
In this article, friction properties of the initial components  
of friction materials: iron, carbon, silicon, graphite, asbestos, in-  
osil, lead oxide, carbon black, graphite, glass wool, slag wool,  
iron powder, lead powder, steel wool, brass wire and chips,  
aluminum, etc., are examined. Their effect on strength and  
friction coefficients at various temperatures is investigated.

Godchenko, V.M., and A.M. Petrulin. Friction Between Cast Iron  
and Plastics  
The authors discuss effect of the composition, structure and  
properties of cast iron working in pair with PK-16A plastic,  
on changes in the friction coefficient. 93

STRIZHENOVA, Nina Fedorovna; YUSUPOV, Akhat Sultangarayevich;  
VVEDENSKIY, Ye.A., red.; RAKHMATULLINA, R.Kh., tekhn. red.

[Ways of increasing labor productivity in drilling] Puti  
rosta proizvoditel'nosti truda v bureni. Ufa, Bashkirscoe  
knizhnoe izd-vo, 1962. 74 p. (MIRA 16:6)  
(Oil well drilling--Labor productivity)

VVEDENSKIY, Ya.A., red.

[Our experiences] Nash opyt. Ufa, Izd-vo "Bashkortostan,"  
1964. 37 p. (MIRA 18:5)

1. Bashkirskoye respublikanskoye dobrovol'noye pozharnoye  
obshchestvo.

VVEDENSKIY, Ye.I.

Desmoid of the abdominal wall in a six-year-old boy; one observation.  
Vop. onk. 11 no.6:107 '65. (MIRA 18:8)

1. Iz khirurgicheskogo oddeleniya 2-y dorozhnoy bol'nitsy Kazanskoy  
zheleznoy dorogi, stantsiya Tselinograd (nachal'nik bol'nitsy - T.D.  
Iscnt'yeva).

VVEDENSKIY, Yu.D., inzh.

Consolidation of field piles of milled peat for the purpose  
of retarding the process of self-heating. Torf.pron. 36  
no.6:9-14 '59. (MIRA 13:2)

1. Pel'gorskoye torfopredpriyatiye.  
(Peat)



KOLACH, T.A., kand. tekhn. nauk; VVEDENSKIY, Yu.G., inzh.

Study of heat transfer during boiling in vertical tubes. Trudy  
MEI no.48:53-66. '63. (MIRA 17:6)

8(3), 9(3)

AUTHOR: Vvedenskiy, Yu.V.

06542

SOV/142-2-2-18/25

TITLE: A Thyatron Nanosecond Pulse Generator With a Universal Output

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, 1959, Vol 2, Nr 2, pp 249-251 (USSR)

ABSTRACT: The author describes a generator for rectangular pulses having a duration of  $10^{-9}$  seconds and an amplitude of 900 volts at a load of 500 - 800 ohms. This generator does not have the disadvantages of similar devices which use capacitive storing elements. Figure 1 shows the circuit diagram of the pulse generator suggested by the author. Two TG11-3/1 thyatron~~s~~ are used providing pulse frequencies of up to 30 - 50 kc. For shaping the rectangular pulses a uniform, long line is used with a return loss at both ends, which is not equal to 1. For obtaining a line with such properties, a matching resistance is connected to the open end of the cable, by means of one thyatron. The author presents equations for calculating the value of this re-

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06542

SOV/142-2-2-18/25

A Thyatron Nanosecond Pulse Generator With a Universal Output

sistance under the condition that the voltage at the load changes to zero at  $t = \tau_n$ . The circuit is suitable for practical application, since it is not necessary to match the load with the impedance of the shaping line. The amplitude of the generated pulses may attain values close to ultimate anode voltage of the thyatrons. The pulse width may be continuously controlled within the ranges of doubled duration to the magnitude of double delay of the line. The author presents a second version of this circuit, shown in figure 3, where only one thyatron is used. The efficiency of the pulse generator is about 40%, since not all the energy stored in the cable is transmitted. There are 2 circuit diagrams and 2 oscillograms.

This article was recommended by the Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom gosudarstvennom universitete imeni N. I. Lobachevskogo (Scientific Research Institute of Radio Physics at the Gor'kiy State University imeni N. I. Lobachevskiy)

Card 2/3

06542

SOV/142-2-2-18/25

A Thyatron Nanosecond Pulse Generator With a Universal Output

SUBMITTED: September 16, 1958

Card 3/3

VVEDENSKIY, Yu.V.

Optimum design of the deflection systems of wide-band cathode  
ray tubes. Izv. vys. ucheb. zav.; radiotekh. 8 no.3:348-350  
My-Je '65. (MIRA 18:9)

VVEDENSKIY, Yu. K.

Thyratron generator for millimicrosecond pulses with a universal output. Izv. vys. ucheb. zav.; radiotekh. 2 no.2:249-251 Mr-Apr '59.  
(MIRA 12:7)

1. Rekomendovana Nauchno-issledovatel'skim radiofizicheskim institutom pri Gor'kovskom gosudarstvennom universitete im. N.I. Lobachevskogo.

(Pulse techniques (Electronics))  
(Thyratrons)

PANKOV, I.V.; VVDENSKAYA, T.A.

Fitting hard-alloy draw-plate blanks. Mashinostroitel' no.5:16  
My '59. (MIRA 12:8)

(Dies (Metalworking))

VVODENSKIY, B. A. and ARMAND, N. A.

"Diffraction of VHF Around the Earth with Consideration of Reflection at Layers."

report presented at the Sov-bloc VHF Propagation Conference, sponsored by the  
Institute for Radio Engineering and Electronics of the CSR Acad. Sci, Liblice, Czech.  
10-12 Nov 1958.



VYADRO, M.D., podpolkovnik med. sluzhby. kand. med. nauk

~~Pathogenesis~~ Pathogenesis and expert testimony of hypoxic collapses during flying.

Voen. med. zhur. no.3:60-64 Nr '58.

(MIRA 12:7)

(EXPERT TESTIMONY

of hypoxic collapse during flying (Rus))

(ANOXEMIA

pathogen. & expert testimony of hypoxic collapse during  
flying (Rus))

(AVIATION,

same)

5(4)

SOV/76-33-6-22/44

AUTHORS: Vyakhirev, D. A., Bruk, A. I.

TITLE: Effect of the Experimental Parameters on the Chromatographic Separation of Substances in the Gaseous and Vapor Phase (Vliyaniye parametrov opyta na khromatograficheskoye razdeleniye veshchestv v gazovoy i parovoy fazakh). II. Influence of the Nature of the Carrier Gas on the Separation of the Mixtures of Gaseous Hydrocarbons (II. Vliyaniye prirody gaza-nositelya na razdeleniye smesey gazobraznykh uglevodorodov)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 6, pp 1309-1317 (USSR)

ABSTRACT: On the basis of certain considerations it is assumed that in the series  $H_2 \rightarrow N_2 \rightarrow CO_2$  as carrier gas (CG) a blurring of the chromatogram bands at the absorbed substance becomes stronger with respect to a finiteness of kinetics, while blurring becomes lower with longitudinal diffusion. Here, an investigation is made of the influence exerted by these factors on the band blurring (BB); the above mentioned carrier

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SOV/76-33-6-22/44  
Effect of the Experimental Parameters on the Chromatographic Separation of Substances in the Gaseous Vapor Phase. II. Influence of the Nature of the Carrier Gas on the Separation of the Mixtures of Gaseous Hydrocarbons

gases are applied in this connection. The adsorbent used was pre-treated silica gel MSM. The adsorption isotherms and adsorption heats of n-butane (I) in  $H_2$ ,  $N_2$  and  $CO_2$  were determined according to the dynamic method (Ref 10) in an appropriate apparatus (Fig 1). The obtained adsorption isotherms of (I) in  $H_2$ ,  $N_2$  and  $CO_2$  obey the Langmuir equation (Figs 2, 3). The adsorption coefficients and values of the maximum adsorption of (I) in  $H_2$ ,  $N_2$  and  $CO_2$  were derived from the diagrams (Table 1). Experimental results showed that the nature of the (CG) considerably influences the above mentioned factors. The numerical values obtained concerning the effective coefficients of the longitudinal diffusion (Table 2) with (CG) gas flow rates of 12 ~ 100 cm/min, as well as the obtained elution- and chromatographic curves of the gaseous hydrocarbons point to a quicker and more complete separation in the  $CO_2$  current (as compared to

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SOV/76-33-6..22/44  
Effect of the Experimental Parameters on the Chromatographic Separation  
of Substances in the Gaseous Vapor Phase. II. Influence of the Nature  
of the Carrier Gas on the Separation of the Mixtures of Gaseous Hydro-  
carbons

H<sub>2</sub> and N<sub>2</sub>), because a weaker effect of the factors acting  
on the (BS) is observable. The last mentioned factors are  
given for various gas flow rates and the individual (GC) are  
mentioned (Table 3). Finally, gratitude is expressed to  
Professor A. A. Zhukhovitskiy. There are 8 figures, 3 tables,  
and 20 references, 8 of which are Soviet.

ASSOCIATION: Gor'kovskiy gosudarstvennyy universitet im. N. I. Lobachevskogo  
(Gor'kiy State University imeni N. I. Lobachevskiy)

SUBMITTED: November 16, 1957

Card 3/3

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001961320004-5

VARRAIA OK

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001961320004-5"

1. BERNADSKIY, I. F.; SUSHKOV, V. T.; BESPECHANSKIY, K. S.; STARCHENKO, V. S.; NOTKIN, B. A.; VVEDENSKIY, V. V.; BESHCHINSKIY, L. I.
2. USSR (600)
4. Gas and Oil Engines - Testing
7. Stand for testing internal combustion engine with an asynchronous machine.  
Prom. energ. 9 no. 10, 1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

~~RESTRICTED~~

VVEDENSKIYI, A. A.

CA: 41-6126/d

VVEDENSKIYI, A. A.

Naftyanoe Khoz. 25, No. 2, 47-50 (1947)

Specific heat of hydrocarbons.

~~RESTRICTED~~

~~RESTRICTED~~

VVEDENSKIYI, A. A.

CA: 41-6126/d

VVEDENSKIYI, A. A.  
Neftyanoe Khoz. 25, No. 2, 47-50 (1947).  
Specific heat of hydrocarbons.

~~RESTRICTED~~



VVEDENSKY, A.

"A study of Kinetics and the mechanism of reactions of catalytic hydrogenation of hydrocarbons. III. Kinetics of hydrogenation of benzene over nickel." by A. A. Achudjah, and A. A. Vvedensky. (p. 419)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1946, Volume 16, No. 3

VVEDENSKY, A. A.

"A study of the kinetics and the mechanism of reactions of hydrogenation of hydrocarbons. IV. A study of the peculiarities in the inconstancy of the activity of the nickel catalyst in the hydrogenation of benzene." by A. A. Alchudjan and A. A. Vvedensky (p. 426)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1946, Volume 16, No. 3

VVEDENSKY, A

A

"Study of the kinetics and the mechanism of the reaction of catalytic hydrogenation of hydrocarbons." by A. A. Vvedensky, R. K. Dobronogov and A. V Frost (p. 76)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1946, Volume 16, No. 1

VVKLICKY, Miloslav

(3)

3

13060\* (Economic Heat-Resisting Alloys for Temperatures Above 800° C.) *Ekonomické žáruvzdorné slitiny pro teploty nad 800° C.* Jaroslav Pluháč and Miloslav VVKlický, *Sklepníček*, v. 2 no. 4; *Práce Československého Vysokého Středního školství*, v. 1, no. 3, 1954, p. 21-28.  
Heat resistance of 29 alloys of Fe-Si, Fe-Si-Al, and Fe-Al with C and up to 12% Si and 35% Al. Steel specimens with 13 to 23% Cr and austenitic Cr-Ni steel. Specimens examined at 800 to 1160° C. Tables, graphs, micrographs.

ca

11 15

Phosphorus and calcium metabolism in the Kashin-Bek disease. N. V. Bolytyeva, b. D. Arslanov and S. M. Dyshkov. Dokl. Ak. Nauk U.S.S.R. 60, No 2, 1115 (in English, 1960). In children, affected or mildly affected with the Kashin-Bek (moss) disease, metabolism of the P and Ca balance is close to equal. In the district the food is low in Ca, causing an improper Ca/P intake ratio. The Ca and P content of the blood is not affected by the disease. E. Eames

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

VYSTREIL, A.

Polymerization of methyl methacrylate in the presence of benzaldehyde. A. Vystreil and M. Hudlicky. Chem. Listy 43, 87-102 (1949). — BzH accelerates the polymerization of methyl methacrylate, the effect increasing with concn. of BzH; the dependence on concn. is not linear. The degree of polymerization is unchanged by BzH during the block polymerization; in soln., the degree of polymerization decreases with time and with increasing concn. of BzH. Concns. of BzH up to 3.3% were used. M. Hudlicky

# USSR

Q1553 Artobolevskii, I. I., Zinov'ev, V. N., Vyach, A. and Edel'shteyn, B. V. Collection of problems on theory of mechanisms and machines. Sbornik zadach po teorii mekhanizmov i mashin. 2nd ed. Moscow, Mashinostroyeniye, 1961, 196 pp.

Many recent papers in the area of mechanism design problems needed for the engineering student. The present work fulfills this need. A series are given in the book, depending upon the demands of the problem, to provide numerical, or graphical. The arrangement is in the form of the works of the author, and a list of problems is given by a brief discussion of the general principles. The following topics suggest the scope of the work: kinematic pairs, composition of mechanisms, classification, degrees of freedom, trajectories, velocity and acceleration diagrams, centrodes, toothed mechanisms, design of mechanisms and cams, forces, friction, balancing of rotating mechanisms.

M. Goldberg, USA

lw-jgb

VOLOSHENKO-KLIMOVITSKIY, Yu.Ya.; VYACHESLAVOV, A.A.; MEL'SHANOV, A.F.

Apparatus for testing materials under "high-speed" loading. Zav.-  
lab. 29 no.4:482-486 '63. (MIRA 16:5)  
(Testing machines)



S/032/63/029/004/012/016  
A004/A127

AUTHORS: Voloshenko-Klimovitskiy, Yu.Ya., Vyacheslavov, A.A.,  
Mel'shanov, A.F.

TITLE: Apparatus for testing materials under high-speed loads

PERIODICAL: Zavodskaya laboratoriya, no. 4, 1963, 482,- 486

TEXT: Although the interest in studying material properties under "high-speed" loads, during which the time up to destruction of the specimens is measured in milliseconds, is constantly growing, the mechanical characteristics under such loads have been practically not investigated at all due to the lack of adequate machines and instruments. The authors give a description of a laboratory-type installation for the testing of materials under high-speed loads, describing in detail the loading device, the apparatus for recording the loads and deformation of the specimens and point out that the loading pulses are in the range of from some milliseconds to one second. The block diagram of the electronic portion of the apparatus and an oscillogram of the high-speed load testing of CT3 (St.3) grade steel and amr6 (AMC6) alloy are given. There are 3 figures.

ASSOCIATION: Institut mashinovedeniya (Institute of the Science of Machines)  
Card 1/1

VYACHESLAVOV, Mikhail Iosifovich; TSEYTS, I.E., inzh., retsenzent; KORBOV, M.M., retsenzent; DESYATKOV, M.I., inzh., red.; SEMENOVA, M.M., red. izd-va; EL'KIND, V.D., tekhn. red.

[Methods for establishing consolidated time norms for technical standardisation of milling operations; piece and small lot production]  
Metodika postroeniia ukрупnennykh normativov vremeni dlia tekhnicheskogo normirovaniia frezernykh rabot; edinichnoe i melkoseriinoe proizvodstvo. Moskva, Mashgiz, 1962. 119 p. (MIRA 15:6)  
(Metal cutting—Production standards)

CA

Electrodeposition of high-tin bronze. N. P. Fedot'ev, N. M. Vyacheslavov, and E. I. Orlova (Leningrad Technol. Inst.). *Zhur. Priklad. Khim.* (J. Applied Chem.) 23, 380-4 (1950).—Baths were prepd. by mixing solns. of  $K_2Cu_2(CN)_4$  with solns. of  $Sn(ONa)_2$  or  $Sn(ONa)_4$ , the latter prepd. from the former through oxidation with  $H_2O_2$ . Stannite baths (Sn metal 10, Cu metal 30, free NaOH 25, free KCN 15 g./l., at 65°, 1.5-5.0 amp./sq. dm.) gave loose, dendritic deposits. Compact bright deposits of white bronze on Fe or Cu cathodes were obtained with stannate baths only, Sn (metal) 50, Cu (metal) 15, free NaOH 25, free KCN 10 g./l., with alternated two Cu and two Sn anodes, anodic c.d. on Cu 0.5-0.7, anodic c.d. on Sn 2.0-2.1 amp./sq. dm., i.e. high enough to ensure anodic soln. in the stannite form. At 65°, with a cathodic c.d. of 2, 4, 6, and 8 amp./sq. dm., the deposits had the compn., resp. (Sn/Cu) 61.2/41.8, 62.0/38.0, 64.3/31.7, and 74.8/25.4; with the current efficiencies of 80.8, 80.0, 71.8, and 61.0%, resp. With the same anodic c.d., at the const. cathodic c.d. of 3 amp./sq. dm., the current efficiencies at 25, 35, 45, 55, 65, and 75° were 11.05, 11.52, 36.70, 72.30, 78.20, and 78.80%; the deposits, at all these temps., of the same white, glossy, and adherent quality. At the same c.d.s., at 65°, electrolytes contg. (in g./l.) Sn/Cu 65/13, 65/22, and 65/33 gave deposits of the compn. (Sn/Cu, in %) 62.6-37.4, 61.9/46.1, and 45.8/54.2. At const. Sn (metal) 45, Cu (metal) 15, free NaOH 30, free KCN 10, 20, and 30 g./l., the compn. of 15-min. deposits (Sn/Cu, in %) was 63.8, 61.2, 52.2-67.8; and 21.0/79.0; the current efficiencies 87.0, 80.1, and 60.0%. The recommended bath compn. is Sn 45-60, Cu 10-15, free NaOH 25-30, free KCN 10-15 g./l., cathodic c.d. 3-4 amp./sq. dm., temp. 60-65°. The bath is stable and has a good throwing power. N. Thom

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\*Electrodeposition of High-Tin Bronze. N. P. Vokhlov, N. M. Vyacheslavov, and E. I. Orlov (Zhur. Prikl. Khim., 1950, 23, (4), 380-381). - (In Russian). The electrodeposition of Sn-Cu alloys on Fe and Cu cathodes from baths contg. Na stannate or stannite and complex Cu cyanide was studied, using Sn anodes (c.d. 0.5-0.7 amp./dm.<sup>2</sup>) and Cu anodes (c.d. 1 amp./dm.<sup>2</sup> in stannite baths, 2-2.4 amp./dm.<sup>2</sup> in stannite).

With stannite baths contg. Sn 10, Cu 30, free NaOH 25, free KCN 15 g./l. and cathodic c.d. ( $D_c$ ) of 1-3.50 amp./dm.<sup>2</sup> at 65°C., gray desludged deposits were obtained; the remaining work was therefore done with stannate baths. With bath contg. Sn 50, Cu 15, free NaOH 25, free KCN 10 g./l. at 65°C., and using  $D_c$  of 2, 3, 4, 5, 6, 7, and 8 amp./dm.<sup>2</sup>, silvery-white compact deposits contg. 56.2, 59.0, 62.0, 65.0, 68.3, 71.3, and 74.0% Sn were obtained, resp. the current efficiencies (%) being 86.5, 81.9, 89.0, 78.9, 71.5, 59.1, and 61.9. When  $D_c = 3$  amp./dm.<sup>2</sup>,  $\eta = 11.0\%$ , 11.52, 16.50, 72.28, 79.80, 78.20, 78.30, 78.50% for this bath at 25, 35, 45, 55, 65, 65, 70, 75°C., all the deposits being compact, white, bright, and adherent. At 65°C., a series of baths contg. 15, 25, 35 g./l. Cu, with Sn 65, free KCN 15, and free NaOH 30 g./l. gave deposits contg. 62.0, 73.0, and 75.8% Sn, resp. With baths contg. Sn 45, Cu 15, free NaOH 30, and free KCN 10, 15, 20, 25, 30 g./l., deposits contg. 61.8, 65.0, 67.2, 68.8, and 71.0% Cu were obtained at 65°C. and  $D_c = 2$  amp./dm.<sup>2</sup>, the being 87.0, 89.7, 80.1, 79.4, 69.0% resp. Raising the NaOH concentration caused pptn. of Sn; an increase in the concentration provoked the Cu anodes. The bath recommended has good throwing power and is stable in continuous use at 60-65°C., with  $D_c = 3$  amp./dm.<sup>2</sup>. G. A. E. T.